

INTERNATIONAL SEARCH REPORT

International Application No

PCT/JP 03/13579

A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 C12N5/06 C07K14/47

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C12N C07K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, BIOSIS, PAJ, WPI Data, MEDLINE

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 96/26292 A (TULARIK INC) 29 August 1996 (1996-08-29) page 3, line 5 - line 14	1, 5
X	ONISHI M ET AL: "IDENTIFICATION AND CHARACTERIZATION OF A CONSTITUTIVELY ACTIVE STAT5 MUTANT THAT PROMOTES CELL PROLIFERATION" MOLECULAR AND CELLULAR BIOLOGY, AMERICAN SOCIETY FOR MICROBIOLOGY, WASHINGTON, US, vol. 18, no. 7, July 1998 (1998-07), pages 3871-3879, XP000960979 ISSN: 0270-7306	1, 3-15, 22-32
Y	page 3874, left-hand column, paragraph 2; figure 1A	1-18, 22-32, 38-51
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- *Z* document member of the same patent family

Date of the actual completion of the international search

23 March 2004

Date of mailing of the international search report

16/04/2004

Name and mailing address of the IS*

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	<p>SNOW JONATHAN W ET AL: "STAT5 promotes multilineage hematolymphoid development in vivo through effects on early hematopoietic progenitor cells" BLOOD, vol. 99, no. 1, 1 January 2002 (2002-01-01), pages 95-101, XP002274601 & ISSN: 0006-4971 page 100, left-hand column, paragraph 1 - right-hand column, paragraph 3</p>	<p>1-18, 22-32, 38-51</p>
P,X	<p>WO 03/052083 A (CANCER RES TECHNOLOGY LTD;) 26 June 2003 (2003-06-26)</p> <p>page 4, line 10 - line 16; claim 1</p>	<p>1-18, 22-32, 38-51</p>
P,X	<p>IWAMA A: "Selective activation of STAT5 maintains long-term bone marrow repopulating hematopoietic stem cells ex vivo." EXPERIMENTAL HEMATOLOGY (NEW YORK), vol. 31, no. 7 Supplement 1, July 2003 (2003-07), page 66, XP002274602 & 32ND ANNUAL MEETING OF THE INTERNATIONAL SOCIETY FOR EXPERIMENTAL HEMATOLOGY; PARIS, FRANCE; JULY 05-08, 2003 ISSN: 0301-472X abstract</p>	<p>1-18, 22-32, 38-51</p>
P,A	<p>KYBA MICHAEL ET AL: "Enhanced hematopoietic differentiation of embryonic stem cells conditionally expressing Stat5." PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA, vol. 100, no. Supplement 1, 30 September 2003 (2003-09-30), pages 11904-11910, XP002274603 & ISSN: 0027-8424 page 11904, paragraph 2 - paragraph 4</p>	<p>1</p>

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Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.: 19-21, 33-37
because they relate to subject matter not required to be searched by this Authority, namely:
Although claims 38-40, 42-44 and 49 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2. ☒ Claims Nos.: 19-21, 33-37
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
see FURTHER INFORMATION sheet PCT/ISA/210
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.1

Although claims 38-40, 42-44 and 49 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.

Continuation of Box I.2

Claims Nos.: 19-21, 33-37

Present claims 19-21, 33-37 relate to an agent defined by reference to a desirable characteristic or property, namely the ability to activate STAT5.

The claims cover all agents having this characteristic or property, whereas the application provides neither support within the meaning of Article 6 PCT nor disclosure within the meaning of Article 5 PCT for any such agents. In the present case, the claims so lack support, and the application so lacks disclosure, that a meaningful search over the whole of the claimed scope is impossible.

Independent of the above reasoning, the claims also lack clarity (Article 6 PCT). An attempt is made to define the agent by reference to a result to be achieved. Again, this lack of clarity in the present case is such as to render a meaningful search over the whole of the claimed scope impossible. Consequently, no search has been carried out for claims 19-21, 33-37.

The applicant's attention is drawn to the fact that claims relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure. If the application proceeds into the regional phase before the EPO, the applicant is reminded that a search may be carried out during examination before the EPO (see EPO Guideline C-VI, 8.5), should the problems which led to the Article 17(2) declaration be overcome.

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Information on patent family members

International Application No

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Patent document cited in search report		Publication date		Patent family member(s)		Publication date
WO 9626292	A	29-08-1996	US	5618693 A		08-04-1997
			AU	4929996 A		11-09-1996
			WO	9626292 A1		29-08-1996
WO 03052083	A	26-06-2003	WO	03052083 A2		26-06-2003